

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for CAMPHENE

Plant	Part	Low PPM	High PPM	StdDev	Reference
Abies alba	Leaf	528.0	738.0	0.08626138487834419	--
Abies sachalinensis	Branches	4160.0	4680.0		--
Abies spectabilis	Leaf	175.0	465.0	-0.016929013209351848	--
Abies balsamea	Plant	440.0	950.0	1.0192270400228702	--
Achillea millefolium	Leaf	2.0	600.0	0.03409920562522311	--
Acinos alpinus	Shoot		0.5	-0.13423018852172086	Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Acinos alpinus	Shoot		0.5	-0.13423018852172086	Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Acinos suaveolens	Shoot		900.0	-0.05123938711110241	Jim Duke's personal files.
Acorus calamus	Rhizome	10.0	460.0	-1.0	--
Aesculus hippocastanum	Flower Essent. Oil		83000.0		Jim Duke's personal files.
Agastache nepetoides	Plant		1.0	-0.6041137923889136	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Agastache foeniculum	Plant	1.0	35.0	-0.5459540576133597	--
Agathosma betulina	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Agathosma betulina	Leaf Essent. Oil				--
Ageratum conyzoides	Plant	5.0	38.0	-0.5408223163096343	--
Ageratum conyzoides	Shoot		3060.0	0.14804925218510195	R. Vera, (1993); Chemical composition of the essential oil Ageratum conyzoides L. (Asteraceae) from Reunion, Flavour Fragr. J., Vol.8, 257-260.
Aloysia citrodora	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Alpinia galanga	Rhizome				--
Alpinia officinarum	Rhizome				Wealth of India.
Amomum xanthioides	Seed				--
Anethum graveolens	Plant				Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Angelica archangelica	Fruit				--
Angelica archangelica	Root Essent. Oil				--
Angelica archangelica	Root	2.0	130.0	1.4108316199577506	--
Aniba rosaeodora	Essential Oil				--
Apium graveolens	Leaf Essent. Oil		1000.0	-0.8415153554301138	--
Apium graveolens	Seed Essent. Oil				--
Apium graveolens	Seed				Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
Aralia cordata	Stem		3.0		--
Artemisia dracunculus	Essential Oil				--
Artemisia annua	Plant	12.0	920.0	0.9679096269856168	--
Artemisia dracunculus	Leaf Essent. Oil				--
Artemisia dracunculus	Leaf				--
Artemisia absinthium	Plant				--
Artemisia salsoloides	Shoot		24500.0	2.126173523717797	V. Kaul, P. Weyerstahl, H. Wahlberg, H. Marschall, (1992); Volatile constituents of the essential oil and the absolute of Artemisia salsoloides Willd. from Ladakh, Flavour and Fragrance journal, Vol.7, 299-305.
Artemisia capillaris	Essential Oil				--
Barosma betulina	Leaf				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Boswellia sacra	Resin Essent. Oil		0.7		Abdel Wahab, S. M., Aboutabl, E. A., El-Zalabani, S. M., Fouad, H. A., De Pooter, H. L., El-Fallaha, B. 1987. The Essential Oil of Olibanum. Plant Med. 53 (4): 382-384.
Boswellia serrata	Essential Oil				--
Calamintha nepeta	Leaf				Akgul, A., De Pooter, H.L., and De Buyck, L.F. 1991. The Essential Oils of Calamintha nepeta subsp. glandulosa and Ziziphora clinopodioides from Turkey. J. Ess. Oil Res., 3: 7-10.
Calamintha nepeta	Shoot		1.0	-0.13418405689225413	Kirimer, N., Baser, K.H.C., Ozek, T. and Kurkcuoglu, M. 1992. Composition of the Essential Oil of Calamintha nepeta subsp. glandulosa. J. Ess. Oil Res. 4:189-190
Callicarpa americana	Leaf		0.55	-0.19248498534059874	--
Cannabis sativa	Plant				--
Cannabis sativa	Flower Essent. Oil				--
Cannabis sativa	Essential Oil				--
Cannabis sativa	Resin, Exudate, Sap				--
Cannabis sativa	Leaf Essent. Oil				--
Capsicum annum	Fruit				--
Carum carvi	Seed	1.0	900.0	1.5222256000900138	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Carum carvi	Plant		30.0	-0.5545069597862352	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Carum carvi	Fruit	1.0	900.0	0.021412618138643334	--
Centella asiatica	Shoot				Jim Duke's personal files.
Chamaemelum nobile	Plant				--
Chrysanthemum parthenium	Shoot		95.0	-0.1255113105525119	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
Chrysanthemum balsamita	Plant				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Chrysanthemum x morifolium	Plant	8.0	30.0	-0.5545069597862352	Wealth of India.
Cinnamomum verum	Stem Bark				--
Cinnamomum verum	Root Bark				--
Cinnamomum verum	Leaf	20.0	40.0	-0.17757340583671746	--
Cinnamomum aromaticum	Plant				--
Cinnamomum camphora	Leaf		5.0	-0.19080294405308876	--
Cinnamomum verum	Bark Essent. Oil		0.0		--
Cinnamomum verum	Bark	18.0	72.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Cinnamomum verum	Leaf Essent. Oil				--
Cinnamomum camphora	Plant				--
Cistus ladaniferus	Leaf	11.0	770.0	0.09835696267616935	--
Citrus paradisi	Pericarp				--
Citrus limon	Essential Oil	2.0	50.0	-0.6924881415674572	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus aurantium	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Citrus limon	Leaf Essent. Oil				Jim Duke's personal files.
Citrus aurantium	Plant				--
Citrus sinensis	Fruit		0.1	-0.35176349319281713	--
Citrus reticulata	Fruit	1.0	40.0	-0.3352175138149692	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Citrus limon	Petiole		3.0		--
Citrus aurantiifolia	Fruit	50.0	80.0	-0.3186300658171268	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Cleonia lusitanica	Leaf	1.0	5.0	-0.19080294405308876	Perez-Alonso, M., Velasco-Negueruela, A., and Lopez-Saez, A. 1991. The Essential Oil of Cleonia lusitanica. J. Ess. Oil Res., 3: 441-442.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Coleus barbatus	Stem Essent. Oil		11200.0		Jim Duke's personal files.
Coleus barbatus	Leaf Essent. Oil		11200.0	-0.47873189704519575	Jim Duke's personal files.
Coleus barbatus	Root Essent. Oil		64000.0	-1.0	Jim Duke's personal files.
Coriandrum sativum	Essential Oil				--
Coriandrum sativum	Fruit	2.0	155.0	-0.2875286008211722	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Coriandrum sativum	Seed Essent. Oil	2100.0	7600.0	1.2973683379921246	--
Coridothymus capitatus	Shoot		22.0	-0.13224652845465215	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23.
Croton lechleri	Plant				Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Croton eluteria	Bark				--
Cuminum cyminum	Seed Essent. Oil		400.0	-1.4910054033640832	--
Curcuma longa	Rhizome				--
Curcuma longa	Tuber				--
Cymbopogon nardus	Plant	150.0	960.0	1.0363328443686213	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Cyperus rotundus	Root				--
Daucus carota	Seed	1.0	70.0	-1.3481581516889602	--
Dictamnus albus	Shoot		0.7	-0.1342117358699341	Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of Dictamnus albus from Turkey. Planta Med. 60:481-2
Dictamnus albus	Shoot		0.7	-0.1342117358699341	Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of Dictamnus albus from Turkey. Planta Med. 60:481-2
Dictamnus albus	Shoot		1.0	-0.13418405689225413	Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of Dictamnus albus from Turkey. Planta Med. 60:481-2

Plant	Part	Low PPM	High PPM	StdDev	Reference
Elettaria cardamomum	Fruit	10.0	30.0	-0.33936437581442985	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Elettaria cardamomum	Seed Essent. Oil				--
Elsholtzia pilosa	Shoot		0.1	-0.1342670938252942	--
Elsholtzia cristata	Shoot		0.1	-0.1342670938252942	Kobold, U., Vostrowsky, O., Bestmann, H.J., Bisht, J.C., Pant, A.K., Melkani, A.B. and Mathela, C.S. 1987. Terpenoids from Elsholtzia Species; II. Constituents of Essential Oil from a New Chemotype of Elsholtzia cristata. Planta Medica 1987: 268-271.
Elsholtzia blanda	Shoot		0.4	-0.13423941484761423	Bestman, H.J., Rauscher, J., Vostrowsky O., Pant, A.K., Dev. V., Perihar, R. and Mathela, C.S. 1992. Constituents of the Essential Oil of Elsholtzia blanda Benth. (Labiatae). J. Ess. Oils Res. 4: 121-124
Elsholtzia polystachya	Leaf		0.0	-0.19269287808399893	Mathela, C.S., Melkani, A.B., Bisht, J.C., Pant, A.K., Bestmann, H.J., Erler, J., Kobold, U., Rauscher, J. and Vostrowsky, O. 1992. Chemical Varieties of Essential Oils from Elsholtzia polystachya from Two Different Locations in India. Planta Medica 58: 376-379.
Elsholtzia polystachya	Leaf		0.0	-0.19269287808399893	Mathela, C.S., Melkani, A.B., Bisht, J.C., Pant, A.K., Bestmann, H.J., Erler, J., Kobold, U., Rauscher, J. and Vostrowsky, O. 1992. Chemical Varieties of Essential Oils from Elsholtzia polystachya from Two Different Locations in India. Planta Medica 58: 376-379.
Eucalyptus blakelyi	Shoot		3055.0	0.1475879358904348	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus paniculata	Shoot		10.0	-0.13335368756185328	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus moluccana	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus melliodora	Shoot		35.0	-0.13104710608851758	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus globulus	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus cladocalyx	Shoot		10.0	-0.13335368756185328	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus brassiana	Leaf		6.0	-0.1904249572469067	Singh, A. K., Gupta, K. C., & Brophy, J. J. 1991. Chemical Constituents of the Leaf Essential Oil of Eucalyptus brassiana S. T. Blake. Journal of Essential Oil Res. 3: 45-7.
Eucalyptus sideroxylon	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus globulus	Leaf Essent. Oil	4000.0	5100.0	-0.6956906319616664	--
Eucalyptus punctata	Shoot		65.0	-0.12827920832051476	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus citriodora	Leaf Essent. Oil				--
Eucalyptus globulus	Leaf				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus astringens	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus oviformis	Shoot		40.0	-0.13058578979385044	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus maideni	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus diversicolor	Shoot		25.0	-0.13196973867785186	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus citriodora	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus botryoides	Shoot		35.0	-0.13104710608851758	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus siderophloia	Shoot		11.0	-0.13326142430291985	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus globulus	Essential Oil		9000.0	-0.4234452941431629	--
Eucalyptus polyanthemus	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Eucalyptus citriodora	Leaf	1.0	20.0	-0.18513314196035818	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eucalyptus bosistoana</i>	Shoot		30.0	-0.13150842238318472	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus albens</i>	Shoot		9.0	-0.13344595082078672	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus occidentalis</i>	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus maculata</i>	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus dealbata</i>	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus camaldulensis</i>	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus tereticornis</i>	Shoot		0.1	-0.1342670938252942	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus nova-anglica</i>	Leaf	8.0	15.0	-0.18702307599126838	Brophy, J. L., Lassak, E. V., & Boland, D. J. 1992. The Leaf Essential Oils of <i>Eucalyptus nova-anglica</i> . Deane & Maiden. Journal of Essential Oil Res. 4: 29-32.
<i>Eucalyptus saligna</i>	Shoot		27.0	-0.131785212159985	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus globulus	Fruit Essent. Oil				--
Ferula jaeschkeana	Fruit		9500.0	3.5877139376747698	--
Ferula gummosa	Essential Oil				--
Foeniculum vulgare	Seed	10.0	540.0	0.27723987642684456	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Foeniculum vulgare	Fruit	10.0	540.0	-0.12787441384193868	--
Foeniculum vulgare	Seed Essent. Oil				Jim Duke's personal files.
Glechoma hederacea	Plant	1.0	3.0	-0.6006926315197634	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Gossypium sp	Plant				--
Hedeoma drummondii	Plant	0.0	900.0	0.9336980182941145	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Hedeoma reverchonii	Plant		460.0	0.18104262708106403	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Hedeoma hispida	Plant		66.0	-0.4929260641415311	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Helianthus annuus	Essential Oil				--
Houttuynia cordata	Shoot Essent. Oil				--
Houttuynia cordata	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Houttuynia cordata	Essential Oil				--
Hypericum perforatum	Plant	1.0	18.0	-0.5750339250011366	--
Hyptis suaveolens	Shoot		4.0	-0.13390726711545384	Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of Hyptis suaveolens (L.) Poit. J. Ess. Oil Res. 5: 321.
Hyptis suaveolens	Shoot		4.0	-0.13390726711545384	Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of Hyptis suaveolens (L.) Poit. J. Ess. Oil Res. 5: 321.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hyssopus officinalis	Shoot		20.0	-0.132431054972519	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Leaf	6.0	80.0	-0.162453933589436	--
Hyssopus officinalis	Shoot				Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. J. Ess. Oil Res. 5: 609-611.
Hyssopus officinalis	Shoot		40.0	-0.13058578979385044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		40.0	-0.13058578979385044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		20.0	-0.132431054972519	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		0.1	-0.1342670938252942	Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. J. Ess. Oil Res. 5: 609-611.
Hyssopus officinalis	Essential Oil				--
Hyssopus officinalis	Shoot		40.0	-0.13058578979385044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		40.0	-0.13058578979385044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		115000.0	10.475998457193025	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hyssopus officinalis	Shoot		20.0	-0.132431054972519	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		30.0	-0.13150842238318472	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Illicium verum	Fruit		1.0	-0.3513902756128656	--
Juniperus communis	Fruit Essent. Oil				--
Juniperus communis	Fruit	1.0	100.0	-0.3103363418182056	--
Juniperus communis	Essential Oil				--
Juniperus sabina	Plant				--
Kaempferia galanga	Rhizome				--
Kaempferia galanga	Plant				--
Lantana camara	Shoot		13.0	-0.133076897785053	--
Larrea tridentata	Plant				--
Laurus nobilis	Leaf	24.0	186.0	-0.1223873321341401	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Laurus nobilis	Leaf Essent. Oil		7000.0	-0.6281133210860443	--
Lavandula x hybrida	Shoot	55.0	85.0	-0.1264339431418462	Tucker, A.O., Maciarelo, M.J., Angell, S., Espailat, J.R., and French, E.C. 1993. The Essential Oil of <i>Lavandula x hybrida</i> Balb. ex Ging., a Distinct Hybrid from <i>L. x heterophylla</i> Poir. (Labiatae). J. Ess. Oil Res. 5: 443-445.
Lavandula x intermedia	Plant	26.0	60.0	-0.5031895467489819	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lavandula latifolia	Plant	25.0	231.0	-0.21068029243663722	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Lavandula angustifolia	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Lepechinia schiediana</i>	Plant		40.0	-0.5374011554404841	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lepechinia calycina</i>	Plant		390.0	0.061301996660806	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Levisticum officinale</i>	Root	7.0	70.0	-0.6207659127814102	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Lindera benzoin</i>	Twig	17.0	26.0		--
<i>Lindera benzoin</i>	Leaf		2.0	-0.19193690447163486	--
<i>Lindera benzoin</i>	Fruit	22.0	40.0	-0.3352175138149692	--
<i>Litsea glaucescens</i>	Shoot	2.0	4.0	-0.13390726711545384	Tucker, et al, EB46(1):21-24.1992
<i>Lycopus virginicus</i>	Plant	3.0	8.0	-0.5921397293468877	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Magnolia denudata</i>	Leaf				--
<i>Magnolia denudata</i>	Bark				--
<i>Magnolia officinalis</i>	Essential Oil				--
<i>Magnolia denudata</i>	Flower				--
<i>Magnolia denudata</i>	Twig				--
<i>Magnolia denudata</i>	Bulb				--
<i>Marrubium vulgare</i>	Plant				--
<i>Marrubium vulgare</i>	Essential Oil				--
<i>Melaleuca alternifolia</i>	Leaf		0.001	-0.19269250009719266	--
<i>Mentha x piperita</i>	Leaf	2.0	25.0	-0.183243207929448	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Mentha longifolia</i>	Shoot	0.0	385.0	-0.0987549654618178	--
<i>Mentha spicata</i>	Essential Oil				--
<i>Mentha arvensis</i> var. <i>piperascens</i>	Plant				Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Mentha aquatica	Shoot				Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.
Mentha pulegium	Shoot				--
Mentha spicata	Leaf				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Mentha aquatica	Shoot				Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.
Mentha aquatica	Shoot				Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.
Mentha x rotundifolia	Leaf	0.0	20.0	-0.18513314196035818	--
Mentha pulegium	Plant	1.0	70.0	-0.48608374240323066	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Mentha aquatica	Shoot				Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.
Mentha aquatica	Shoot		0.1	-0.1342670938252942	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.
Mentha pulegium	Essential Oil	100.0	7000.0	-0.483566600830156	--
Micromeria varia	Shoot		6.0	-0.133722740597587	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Micromeria teneriffae	Leaf		470.0	-0.015039079178441665	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Micromeria croatica	Leaf		30.0	-0.18135327389853784	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Micromeria fruticosa	Leaf	1.0	1.0	-0.1923148912778169	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Micromeria varia	Shoot		6.0	-0.133722740597587	Pedro, L.G., et al. 1995. Composition of the Essential oil of Micromeria varia Benth. ssp. thymoides (Sol. ex Lowe) Perez var. thymoides, and endemic species of the Madeira Archipelago. flav. & Fragr. J. 10(3): 199-202.
Micromeria fruticosa	Shoot		7.0	-0.13363047733865357	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of Micromeria fruticosa (L.) Druce subsp. barbata (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.
Micromeria juliana	Leaf		25.0	-0.183243207929448	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Micromeria congesta	Leaf	1.0	5.0	-0.19080294405308876	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Micromeria thymifolia	Leaf		1.0	-0.1923148912778169	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Micromeria myrtifolia	Shoot		0.1	-0.1342670938252942	Ozek, T., Kirimer, N., and Baser, K.H.C. 1992. Composition of the Essential Oil of Micromeria myrtifolia Boiss. et Hohen. J. Ess. Oil Res., 4: 79-80.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Micromeria dalmatica	Leaf		6.0	-0.1904249572469067	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Micromeria fruticosa	Shoot		7.0	-0.13363047733865357	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of Micromeria fruticosa (L.) Druce subsp. barbata (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.
Monarda media	Plant	15.0	231.0	-0.21068029243663722	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Monarda didyma	Plant	25.0	320.0	-0.05843863375945202	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Monarda clinopodia	Plant		88.0	-0.4552932945808786	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Monarda citriodora	Plant	6.0	25.0	-0.5630598619591108	--
Monarda lindheimeri	Plant		21.0	-0.5699021836974113	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Monarda didyma	Leaf	90.0	170.0	-0.12843512103305268	--
Monarda punctata	Plant	10.0	1080.0	1.241602496517635	--
Monarda fistulosa	Plant	1.0	856.0	0.8584324791728094	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Monarda didyma	Flower		10.0	-0.6881569624054215	Flavour and Fragrance Journal, 6: 80.
Murraya koenigii	Leaf		5.0	-0.19080294405308876	--
Myrciaria dubia	Fruit				--
Myristica fragrans	Seed Essent. Oil	2000.0	4000.0	-0.09681853268597942	--
Myristica fragrans	Seed	80.0	640.0	0.6230692441110584	--
Myristica fragrans	Essential Oil	2000.0	4000.0	-0.5737485608606457	--
Myristica fragrans	Leaf Essent. Oil				--
Myrtus communis	Plant	8.0	30.0	-0.5545069597862352	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Nepeta racemosa	Shoot		3.0	-0.13399953037438728	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of Nepeta racemosa Lam. J. Ess. Oil Res. 5: 215-7.
Nepeta racemosa	Shoot		3.0	-0.13399953037438728	Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of Nepeta racemosa Lam. J. Ess. Oil Res. 5: 215-7.
Ocimum gratissimum	Shoot		29.0	-0.13160068564211816	Vostrowsky, O., Garbe, W., Bestmann, H.J. and Maia, J.G.S. 1990. Essential Oil of Alfavaca, Ocimum gratissimum, from Brazilian Amazon. Zeitschr. Naturforschung 45(C): 1073-6.
Ocimum basilicum	Shoot Essent. Oil		500.0	-0.8123496252026575	--
Ocimum gratissimum	Plant	1.0	240.0	-0.19528506852546118	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ocimum basilicum	Leaf Essent. Oil	300.0	900.0	-0.8450720560025149	--
Ocimum kilimandscharicum	Flower	240.0	400.0	1.4140457687025239	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum kilimandscharicum Guerke. J. Ess. Oil Res., 4: 125-128.
Ocimum tenuiflorum	Leaf		65.0	-0.16812373568216654	Brophy, J.J., Goldsack, R.J., and Clarkson, J.R. 1993. The Essential Oil of Ocimum tenuiflorum L. (Lamiaceae) Growing in Northern Australia, J. Ess. Oil Res. 5: 459-461.
Ocimum canum	Shoot				=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Ocimum basilicum	Essential Oil		900.0	-0.666936586225485	--
Ocimum basilicum	Plant	0.0	400.0	0.07840780100655714	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Ocimum kilimandscharicum	Leaf	105.0	205.0	-0.1152055828166814	Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of Ocimum kilimandscharicum. <i>J. Ess. Oil Res.</i> , 4: 125-128.
Oenanthe javanica	Shoot				--
Oenanthe aquatica	Fruit				--
Origanum vulgare	Plant		0.5	-0.6049690826062011	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.
Origanum vulgare	Shoot		45.0	-0.1301244734991833	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. <i>Z. Lebensm Unters Forsch</i> 197: 20-23.
Origanum onites	Plant		28.0	-0.5579281206553854	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum vulgare	Plant		1.0	-0.6041137923889136	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.
Origanum minutiflorum	Shoot	65.0	150.0	-0.12043683131117337	Baser, K.H.C., Tumen, G., Sezik, E. 1991. The Essential Oil of Origanum minutiflorum O. Schwarz and P.H. Davis. <i>J. Ess. Oil Res.</i> 3: 445-446.
Origanum syriacum	Shoot		40.0	-0.13058578979385044	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. <i>J. Ess. Oil Res.</i> 3: 121-123.
Origanum sipyleum	Shoot		25.0	-0.13196973867785186	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. <i>J. Ess. Oil Res.</i> 4: 139-142.
Origanum vulgare	Plant	1.0	64.0	-0.49634722501068135	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum vulgare	Essential Oil		5100.0	-0.5406818421827995	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Origanum vulgare	Plant		1.0	-0.6041137923889136	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431.
Origanum onites	Shoot		370.0	-0.10013891434581922	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7.
Origanum syriacum	Shoot		40.0	-0.13058578979385044	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum sipyleum	Shoot		20.0	-0.132431054972519	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Origanum sipyleum	Shoot		590.0	-0.07984099738046507	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Origanum vulgare	Shoot Essent. Oil	1500.0	10500.0	-0.15055766984407706	--
Origanum vulgare	Plant		60.0	-0.5031895467489819	Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431.
Origanum onites	Shoot		370.0	-0.10013891434581922	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7.
Origanum syriacum	Shoot		25.0	-0.13196973867785186	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum sipyleum	Shoot		590.0	-0.07984099738046507	Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of Origanum sipyleum of Turkish Origin. J. Ess. Oil Res. 4: 139-142.
Pastinaca sativa	Root				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Perilla frutescens</i>	Shoot Essent. Oil		2000.0	-0.7130808318988705	Nguyen, X. D., La, D. M., Lu'u, D. C., Leclercq, P. A. 1995. Essential Oil Constituents from the Aerial Parts of <i>Perilla frutescens</i> (L.) Britton. <i>J. Essent. Oil Res.</i> , 7(4): 429-432.
<i>Petroselinum crispum</i>	Fruit Essent. Oil	7000.0	20800.0	1.3574673725411264	--
<i>Petroselinum crispum</i>	Seed	3.0	490.0	0.10432519258473769	--
<i>Petroselinum crispum</i>	Seed Essent. Oil		5000.0	0.29045559805793825	--
<i>Petroselinum crispum</i>	Leaf		0.24	-0.19260216125051532	--
<i>Petroselinum crispum</i>	Fruit				--
<i>Peumus boldus</i>	Leaf	30.0	150.0	-0.1359948571566934	--
<i>Pimpinella anisum</i>	Essential Oil				--
<i>Pimpinella anisum</i>	Fruit		119.0	-0.30245730401923043	--
<i>Pimpinella anisum</i>	Seed		119.0	-1.1787017615236954	--
<i>Pinus sylvestris</i>	Leaf Essent. Oil		35000.0	0.3677628391862796	--
<i>Pinus sylvestris</i>	Essential Oil				--
<i>Pinus kesiya</i>	Resin, Exudate, Sap	10000.0	20000.0	-0.7071067811865472	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Pinus sylvestris</i>	Resin, Exudate, Sap				--
<i>Pinus elliottii</i>	Leaf				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Pinus palustris</i>	Resin, Exudate, Sap				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Pinus roxburghii</i>	Resin, Exudate, Sap	12000.0	55000.0	1.414213562373095	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Pinus mugo</i>	Leaf				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Pinus insularis</i>	Resin, Exudate, Sap	10000.0	20000.0	-0.7071067811865472	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Piper auritum</i>	Leaf				Tramil
<i>Piper nigrum</i>	Seed Essent. Oil				--
<i>Piper nigrum</i>	Fruit Essent. Oil	1000.0	1400.0	-1.0221892865520528	--
<i>Piper nigrum</i>	Fruit		120.0	-0.3020426178192843	--
<i>Pogostemon cablin</i>	Plant				--
<i>Psidium guajava</i>	Pericarp Essent. Oil				--
<i>Ptychopetalum olacoides</i>	Root Essent. Oil		66000.0	1.0	Uber Bucek, E., Fournier, G., Dadoun, H. 1987. Volatile Constituents of <i>Ptychopetalum olacoides</i> Root Oil. <i>Planta Med.</i> 53, 2: 231.
<i>Pycnanthemum torreyi</i>	Shoot		10.0	-0.13335368756185328	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum muticum</i>	Shoot	1.0	50.0	-0.12966315720451616	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum montanum</i>	Shoot	833.0	952.0	-0.04644169764656416	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum beadleii</i>	Shoot		7.0	-0.13363047733865357	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum tenuifolium</i>	Shoot	2.0	420.0	-0.09552575139914782	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum loomisii</i>	Shoot	330.0	1260.0	-0.01802461389506835	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum virginianum</i>	Shoot	6.0	87.0	-0.12624941662397934	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum setosum</i>	Shoot	20.0	31.0	-0.1314161591242513	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Pycnanthemum curvipes</i>	Shoot				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Ribes nigrum	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rosa damascena	Essential Oil				--
Rosmarinus x mendizabali	Shoot	430.0	605.0	-0.07845704849646365	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Resin, Exudate, Sap				--
Rosmarinus officinalis	Essential Oil	40000.0	106000.0	2.4924380801760044	--
Rosmarinus officinalis	Shoot	355.0	1435.0	-0.0018785435817184589	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Leaf		23.0	-0.18399918154181208	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaid, M.H. 1994. Analysis and Biological Activity of the Essential Oil of Rosmarinus officinalis L. from Egypt. Flavour and Fragrance J. 9: 29-33.
Rosmarinus eriocalyx	Shoot	735.0	1375.0	-0.007414339117724136	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Shoot Essent. Oil		38100.0	1.6759881269456052	--
Rosmarinus x lavandulaceus	Shoot	210.0	1245.0	-0.019408562779069768	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Shoot		335.0	-0.1033681284084892	Tucker, A. O. and Maciarello, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rosmarinus officinalis	Leaf		23.0	-0.18399918154181208	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of Rosmarinus officinalis L. from Egypt. Flavour and Fragrance J. 9: 29-33.
Rosmarinus eriocalyx	Shoot	735.0	1375.0	-0.007414339117724136	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Leaf Essent. Oil		85000.0	2.146113125386858	--
Rosmarinus tomentosus	Shoot	590.0	960.0	-0.045703591575096736	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Shoot	1035.0	2280.0	0.07608391021702815	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Plant	23.0	2350.0	3.414039648428031	--
Salvia canariensis	Leaf		575.0	0.024649535470672192	Casnigueral, S., Iglesias, J., Vila, R., Virgili, A. and Ibanez, C. 1994. The Essential Oil from Leaves of Salvia canariensis L. Flav. & Frag. J. 9:201-204. S. Canigueral, Facultat de Farmacia, Universitat de Barcelona, Ave. Diagonal 643, E-08028, Barcelona Spain
Salvia sclarea	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Salvia officinalis	Leaf Essent. Oil	28000.0	66400.0	1.484566818920243	--
Salvia gilliesii	Shoot		3.5	-0.13395339874492057	Velasco-Negueruela, A. et al. 1993. The Essential Oil of Salvia gilliesii Benth. J. Ess. Oil Res. 5: 319-320.
Salvia officinalis	Et		47000.0		--
Salvia officinalis	Leaf	20.0	18592.0	6.834837822452428	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Salvia dorisiana	Shoot	0.8	1.0	-0.13418405689225413	Tucker, A.O. & Maciarelo, M.J. 1994. The Essential Oil of Salvia dorisiana Standley. J. Ess. Oil Res. 6: 97-8.
Salvia triloba	Plant	170.0	1200.0	1.4468721486666487	--
Salvia officinalis	Essential Oil	30200.0	60700.0	1.1306904837156095	--
Sassafras albidum	Leaf		0.0	-0.19269287808399893	--
Satureja cilicica	Shoot		60.0	-0.12874052461518187	Tumen, G. Baser, K.H.C. and Kirimer, N. 1993. The Essential Oil of Satureja cilicica P.H. Davis. J. Ess. Oil Res. 5: 547-548.
Satureja montana	Plant	2.0	85.0	-0.46042503588460393	--
Satureja hortensis	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Satureja montana	Essential Oil		3100.0	-0.6008031488697926	--
Satureja thymbra	Shoot		150.0	-0.12043683131117337	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23.
Satureja obovata	Leaf		130.0	-0.14355459328033415	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.
Satureja odora	Shoot		18.0	-0.13261558149038585	Zygadlo, J.A., Merino, E.F., Maestri, D.M., Guzman, C.A. and Espinar, L.A. 1993. The Essential Oils of Satureja odora and Satureja parvifolia from Argentina. J. Ess. Oil Res. 5: 549-51.
Satureja douglasii	Plant	1183.0	2795.0	4.175247941813957	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Satureja obovata	Shoot	850.0	1305.0	-0.013872767243064093	Fitoterapia No.60: 277.
Satureja obovata	Leaf		520.0	0.003860261130660172	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Satureja subspicata	Plant		4.0	-0.5989820510851882	Stanic, G., Petricic, J., and Blazevic, N. 1991. Gas Chromatographic Investigations of Essential Oils of Satureja montana and Satureja subspicata from Yugoslavia. J. Ess. Oil Res., 3: 153-158.
Satureja cuneifolia	Shoot		145.0	-0.12089814760584051	Tumen, G. 1991. The Volatile Constituents of Satureja cuneifolia. J. Ess. Oil Res., 3: 365-366.
Satureja obovata	Leaf		170.0	-0.12843512103305268	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.
Satureja parvifolia	Shoot		19.0	-0.13252331823145244	Zygadlo, J.A., Merino, E.F., Maestri, D.M., Guzman, C.A. and Espinar, L.A. 1993. The Essential Oils of Satureja odora and Satureja parvifolia from Argentina. J. Ess. Oil Res. 5: 549-51.
Satureja obovata	Leaf		170.0	-0.12843512103305268	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.
Saussurea lappa	Root Essent. Oil				--
Schinus molle	Fruit				--
Sideritis mugronensis	Leaf	0.5	1.0	-0.1923148912778169	Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of Sideritis mugronensis Flower and Leaf. J. Ess. Oil Res., 3: 395-397.
Sideritis mugronensis	Flower	2.0	3.0	-0.7258888062971025	Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of Sideritis mugronensis Flower and Leaf. J. Ess. Oil Res., 3: 395-397.
Sideritis pauli	Shoot		6.0	-0.133722740597587	Burzaco, A., Velasco-Negueruela, A. and Perez-Alonso, M.J. 1992. Essential Oil Analysis of Sideritis pauli Pau. FFJ7: 47-8. 1992.
Sideritis athoa	Shoot		2.0	-0.13409179363332072	Ozek, T., Baser, K.H.C. and Tumen, G. 1993. The Essential Oil of Sideritis athoa Papanikolaou Et Kokkini. J. Ess. Oil Res. 5: 669-670.
Tagetes minuta	Essential Oil				--
Tagetes filifolia	Shoot				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Tanacetum parthenium	Essential Oil		54000.0	0.9292841063141826	--
Tanacetum parthenium	Fruit Essent. Oil		7000.0	-0.3352780859890732	--
Tanacetum parthenium	Leaf Essent. Oil		30000.0	0.1899278105662218	--
Tanacetum parthenium	Shoot		95.0	-0.1255113105525119	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
Teucrium pseudoscorodonia	Shoot		0.1	-0.1342670938252942	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Teucrium micropodioides	Leaf		8.0	-0.18966898363454263	Arnold, N., Bellomaria, B., Velentini G. and Rifaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Teucrium cyprium	Leaf		0.0	-0.19269287808399893	Arnold, N., Bellomaria, B., Velentini G. and Rifaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Teucrium oxylepis	Shoot		0.2	-0.1342578674994008	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Teucrium kotschyianum	Leaf		0.0	-0.19269287808399893	Arnold, N., Bellomaria, B., Velentini G. and Rifaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Teucrium asiaticum	Shoot				Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Teucrium scorodonia	Shoot		0.05	-0.13427170698824095	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Teucrium salviastrum</i>	Shoot				Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
<i>Teucrium divaricatum</i>	Leaf		3.0	-0.19155891766545283	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. <i>J. Ethnopharm.</i> 35: 105-113.
<i>Teucrium oxylepis</i>	Shoot		0.39	-0.1342403374802036	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
<i>Thuja occidentalis</i>	Branches				--
<i>Thymus riatarum</i>	Shoot		275.0	-0.10890392394449487	Iglesias, J., Vila, R., Canigueral, S., Bellakdhar, and I Idrissi, A. 1991. Analysis of the Essential Oil of <i>Thymus riatarum</i> . <i>J. Ess. Oil Res.</i> 3: 43-4.
<i>Thymus zygis</i>	Shoot		0.1	-0.1342670938252942	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. <i>Thymus zygis</i> Oil: Its Effects on CCl <sub>4</sub> -Induced Hepatotoxicity and Free Radical Scavenger Activity. <i>JEO5</i> : 153-8.
<i>Thymus zygis</i>	Shoot	90.0	550.0	-0.08353152773780219	De Cunha, A.P. and Salguiero, L.R. 1991. The Chemical Polymorphism of <i>Thymus zygis</i> ssp. <i>sylvestris</i> from Central Portugal. <i>J. Ess. Oil Res.</i> 3: 409-12.
<i>Thymus longicaulis</i>	Shoot		8.0	-0.13353821407972014	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> in the same Population. <i>J. Ess. Oil Res.</i> 5: 291-5.
<i>Thymus serpyllum</i>	Plant	1.0	19.0	-0.5733233445665615	--
<i>Thymus capitatus</i>	Shoot		7.0	-0.13363047733865357	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. <i>Flav. &amp; Frag. J.</i> 8: 331-7.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Thymus funkii	Shoot		470.0	-0.09091258845247643	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.
Thymus broussonettii	Shoot		20.0	-0.132431054972519	Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjlali, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of Thymus broussonettii, T. zygis and T. saturejoides. J. Ess. Oil Res. 5: 45-53.
Thymus longicaulis	Shoot		3.0	-0.13399953037438728	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5.
Thymus orospedanus	Plant		578.0	0.38289111836092754	J. Nat. Prod.
Thymus capitatus	Plant		10.0	-0.5887185684777375	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus saturejoides	Shoot		2740.0	0.11852500932640501	Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjlali, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of Thymus broussonettii, T. zygis and T. saturejoides. J. Ess. Oil Res. 5: 45-53.
Thymus x citriodorus	Plant		80.0	-0.4689779380574795	Stahl-Biskup, E. and Holthuijzen, J. 1995. Essential oil and glycosidally bound volatiles of lemon-scented thyme, Thymus x citriodorus (Pers.) Schreb. Flav. & Fragr. J. 10: 225-229.
Thymus zygis	Shoot				Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.
Thymus vulgaris	Essential Oil		4100.0	-0.5707424955262961	--
Thymus longicaulis	Shoot		40.0	-0.13058578979385044	Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5.
Thymus vulgaris	Plant	15.0	375.0	0.03564329014217928	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Thymus funkii	Shoot		470.0	-0.09091258845247643	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.
Thymus mastichina	Plant	20.0	140.0	-0.36634311198297265	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Trachyspermum ammi	Fruit	150.0	252.0	-0.24730403942640428	--
Valeriana officinalis	Rhizome Essent. Oil				--
Valeriana officinalis	Root	3.0	65.0	-0.7900657071763403	--
Valeriana officinalis	Leaf Essent. Oil		5000.0	-0.6992473325340675	--
Valeriana officinalis	Essential Oil				--
Valeriana officinalis	Leaf	0.0	130.0	-0.14355459328033415	Father Nature's Farmacy: The aggregate of all these three-letter citations.
Valeriana officinalis	Root Essent. Oil				--
Vitex agnus-castus	Leaf	0.2	14.0	-0.18740106279745042	--
Zingiber officinale	Essential Oil				--
Zingiber officinale	Rhizome		3080.0	1.0	--
Zingiber officinale	Rhizome Essent. Oil		126000.0		--